CONTENTS

R. Bellman: On perturbation methods involving expansions in terms of a parameter . . . 195
R. Bellman: A note on the mean value of random determinants . . . 322
G. Birkhoff and J. B. Diaz: Non-linear network problems . . . 431
G. Birkhoff: Stability of spherical bubbles . . . 451
O. Bottema: Note on non-holonomic system . . . 191
W. R. Callahan: On the flexural vibrations of circular and elliptical plates . . . 371
G. F. Carrier: Sound transmission from a tube with flow . . . 457
H. Cohen: On subharmonic synchronization of nearly-linear systems . . . 102
B. A. Cotter and R. S. Rivlin: Tensors associated with time-dependent stress . . 177
S. H. Crandall: An optimum implicit recurrence formula for the heat conduction equation . . . 318
J. B. Diaz (*see G. Birkhoff*)
R. C. DiPrima: Application of the Galerkin method to problems in hydrodynamic stability . . . 55
K. Eisemann: Linear programming . . . 209
A. de la Garza: Error bounds for a numerical solution of a recurring linear system . 453
J. H. Giese: On the equations of linearized conical flow . . . 206
J. N. Goodier and J. C. Wilhoit, Jr.: Axial displacement dislocations for the hollow cone and the hollow sphere . . . 263
R. J. Grosh, E. A. Trabant, and G. A. Hawkins: Temperature distribution in solids of variable thermal properties heated by moving heat sources . . . 161
H. M. Gurk: The use of stability charts in the synthesis of numerical quadrature formulae . . . 73
G. H. Handelman: A note on the transverse vibration of a tube containing flowing fluid . . . 326
P. Hartman and A. Wintner: An inequality for the first eigenvalue of an ordinary boundary value problem . . . 324
P. Hartman and A. Wintner: On an oscillation criterion of de la Vallée Poussin . . 330
G. A. Hawkins (*see R. J. Grosh*)
P. Henrici: On helical springs of finite thickness . . . 106
W. C. Hoffman: Scattering of electromagnetic waves from a random surface . . . 291
A. Huber: The elastic sphere under concentrated torques . . . 98
E. G. Kogbetliantz: Solution of linear equations by diagonalization of coefficients matrix . . . 123
J. Kravtchenko and J. S. McNown: Seiche in rectangular ports . . . 19
G. Kron: Tearing and interconnecting as a form of transformation . . . 147
E. H. Lee: Stress analysis in visco-elastic bodies . . . 183
E. Levin: Indentation pressure of a smooth circular punch . . . 133
H. G. Lew: On the stability of the axially symmetric laminar jet . . . 310
Chih-Bing Ling: Stresses in a circular cylinder having a spherical cavity under tension . . . 381

M. Lotkin: On the improvement of accuracy in integration 47
S. Lundquist: Subharmonic oscillations in a nonlinear system with positive damping 305
J. S. McNown (*see J. Kravtchenko*)
A. R. Manwell: Correction to my paper "A new singularity of transonic plane flows" 337
L. C. Maximon: On the evaluation of indefinite integrals involving the special functions: application of method 84
L. C. Maximon and G. W. Morgan: On the evaluation of indefinite integrals involving the special functions: development of method 79
T. P. Mitchell (*see M. S. Plesset*)
G. W. Morgan (*see L. C. Maximon*)
G. F. Newell: Statistical analysis of the flow of highway traffic through a signalized intersection 353
E. T. Onat: The plastic collapse of cylindrical shells under axially symmetrical loading 63
M. S. Plesset and T. P. Mitchell: On the stability of the spherical shape of a vapor cavity in a liquid 419
W. Prager: The sign of plastic power in the graphical treatment of problems of plane plastic flow 333
C. R. Putnam: A note on the Patterson functions 105
C. R. Putnam: Necessary and sufficient conditions for the existence of negative spectra 335
E. Reissner: On transverse vibrations of thin, shallow elastic shells 169
E. Reissner: On axi-symmetrical vibrations of shallow spherical shells 279
R. S. Rivlin (*see B. A. Cotter*)
N. Rott: Unsteady viscous flow in the vicinity of a stagnation point 444
L. A. Rubel: An estimate of the error due to the truncated boundary in the numerical solution of the Blasius equation 203
D. Shanks: On analogous theorems of Fredholm and Frame and on the inverse of a matrix 95
R. T. Shield: The plastic indentation of a layer by a flat punch 27
J. S. Shipman: On Middleton's paper "Some general results in the theory of noise through non-linear devices" 200
A. M. O. Smith: On the growth of Taylor-Görtler vortices along highly concave walls 233
K. Stewartson: The asymptotic boundary layer on a circular cylinder in axial incompressible flow 113
J. L. Synge: The motion of a viscous fluid conducting heat 271
H. S. Tan: On source and vortex of fluctuating strength travelling beneath a free surface 314
C. A. Traenkle: Determination of the root systems of algebraic equations by affinity transforms 1
E. A. Trabant (*see R. J. Grosh*)
D. Trifan: A minimum principle of plasticity 337
J. C. Wilhoit, Jr. (*see J. N. Goodier*)
A. Wintner (*see P. Hartman*)
A. Wintner: On linear instability 192

L. C. Woods: The design of two-dimensional aerofoils with mixed boundary conditions 139
T. Yao-Tsu Wu: Two dimensional sink flow of a viscous heat-conducting, compressible fluid; cylindrical shock waves 393
Chia-Shun Yih: Maximum acceleration in two-dimensional steady flows of an ideal fluid 202
Chia-Shun Yih: On a method of generating three-dimensional potential flows from two-dimensional ones 320
Chia-Shun Yih: Solutions of the hyper-Bessel equation 462
Book Reviews 111, 138, 160, 168, 208, 270, 340, 370, 392, 464